



WIPP Recovery Plan

January 2015

In February 2014, the Department of Energy suspended operations at the Waste Isolation Pilot Plant (WIPP) following a salt truck fire and a subsequent radiological event underground. As the nation's only deep geologic repository for the permanent disposal of defense-related, transuranic waste, WIPP's recovery is central to the DOE's mission and to its commitments to the public, area communities, and waste generator sites and their host states.



The WIPP Recovery Plan outlines a path to resume operations in the first quarter of calendar year 2016, while prioritizing safety, health, and environmental protection. When disposal operations resume, the first waste to be disposed of will be from recovery activities and waste that has been stored above ground at WIPP since operations were halted. WIPP can then begin receiving waste from generator sites.

WIPP recovery costs for resumption of operations are estimated to be approximately \$242 million. To restore WIPP to full operations, a new permanent ventilation system and exhaust shaft will be needed at an estimated additional cost of up to \$309 million.

Priorities

- Safety, health, and protection of the workers, the public, and the environment are DOE's highest priorities.
- Every stage of recovery is supported by rigorous regulatory compliance and robust upgrades to nuclear safety, fire protection, radiological controls, and emergency management, as well as associated documentation, procedures, and training.
- DOE is committed to communicate openly, early, and frequently with the public and stakeholders.

Key Elements

SAFETY

Safety is paramount to the overall strategy. The Accident Investigation Board reports for the underground fire and the radiological release identified a number of required improvements for WIPP safety programs. Safety documentation is being revised, and upgraded to required standards, and will be implemented prior to recommencing waste emplacement operations, in order to ensure the safety of the workers, the public and the environment. Recovery will proceed at a safe pace, commensurate with workforce capabilities, mine conditions, and status of WIPP infrastructure and systems.

REGULATORY COMPLIANCE

The DOE will fully comply with all regulatory requirements and commitments. The recovery plan assumes expedited initial closure of waste disposal Panel 6 and Panel 7, Room 7, in accordance with the New Mexico Environment Department's May 20, 2014, Administrative Order. Initial closure of Panel 6 is anticipated in the second quarter of fiscal year 2015 and Panel 7, Room 7, in the third quarter of fiscal year 2015 (after the incident investigation is complete).



Metal bulkheads used
in panel closure

DECONTAMINATION

Portions of the mine will be decontaminated to allow for operations. The purpose of decontamination is to protect workers from potential exposure to airborne contamination, by containing contamination. Evaluation of decontamination techniques is ongoing. Comprehensive surveys are being conducted to confirm mine conditions. Decontamination is expected to begin in the second quarter of fiscal year 2015.

VENTILATION

Increasing ventilation capacity will support worker safety, mining, and waste emplacement. Since the radiological event, the existing system has been operating in filtration mode at a reduced ventilation capacity. Additional fan/filter units will allow for increased underground activities involving diesel equipment. Reconfiguration of the underground with bulkheads, ventilation regulators and supplemental fans will further increase ventilation. After resumption of operations, a new permanent ventilation system and exhaust shaft will be completed, which will allow for an increase to pre-incident airflow rates.



Exhaust duct from HEPA filters

MINE STABILITY & UNDERGROUND HABITABILITY

Critical mine safety and maintenance operations are being addressed systematically (by zones). These include radiological surveys and posting of radiological zones, ground control (e.g., ceiling bolting) required due to constant salt creep, operational checks of mine safety equipment, replacement of damaged equipment, fire loading reduction, cleaning, trash removal, and electrical system safe restart. These activities are continuing through fiscal year 2015.



Bolting operations

WORKFORCE RETRAINING

The strategy to staff the recovery project is to maximize use of the existing workforce, cross-training staff for activities specific to recovery and preparing for the resumption of operations. The existing workforce will be trained to enhance safety programs, as well as to work in contaminated and reduced-ventilation environments.

MANAGING WASTE STREAMS

DOE waste generator sites are continuing characterization and certification activities for eventual shipment to WIPP. The DOE has determined that there are no generator sites beyond Los Alamos National Laboratory that have containers with the specific characteristics of the waste stream being studied as the likely cause of the radiological release at WIPP.



Waste drums staged at a waste generator site

The Recovery Plan is available at <http://www.wipp.energy.gov>.